## IFR AERONAUTICAL CHART SYMBOLS

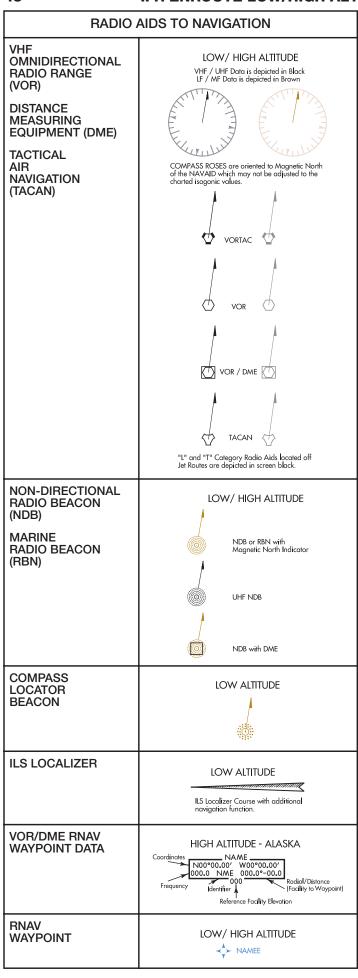
IFR Enroute Low/High Altitude (U.S. & Alaska Charts)
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## GENERAL INFORMATION

Symbols shown are for the Instrument Flight Rules (IFR) Enroute Low and High Altitude Charts.

## IFR ENROUTE LOW/HIGH ALTITUDE U.S. & ALASKA CHARTS

AIRPORTS		AIRPORTS		
AIRPORT DATA	LOW/HIGH ALTITUDE  Airports/Seaplane bases shown in BLUE and GREEN have an approved Instrument Approach Procedure published. Those in BLUE have an	CIVIL	LOW/ HIGH ALTITUDE	
	Procedure published. Those in BLUE have an approved DoD Instrument Approach Procedure and/or DoD RADAR MINIMA published in DoD FLIPS or FAA TPP. Airports/Seaplane bases shown in BROWN do not have a published Instrument Approach Procedure.	CIVIL AND MILITARY	LOW/ HIGH ALTITUDE	
	All IAP Airports are shown on the Low Altituide Charts.  Non-IAP Airports shown on the U.S. Low, Altitude Charts have a minimum hard surface runway of 3000'.  Non-IAP Airports shown on the Alaska Low, Allitude Charts have a minimum hard or soft surface runway of 3000'.	MILITARY	LOW/ HIGH ALTITUDE	
	surface runway of 3000'.  Airports shown on the U.S. High Altitude Charts have a minimum hard surface runway of 5000'.  Airports shown on the Alaska High Altitude Charts have a minimum hard or soft surface runway of 4000'.	SEAPLANE - CIVIL	LOW ALTITUDE	
	Associated city names for public airports are shown above or preceding the airport name. If airport name and city name are the same, only the airport name is shown. City names for military and private airports are not shown.  The airport identifier in parentheses follows the airport name or Pvt.  Airport symbol may be offset for enroute navigational aids.	HELIPORT	LOW ALTITUDE  (H)  (H)  (H)	
AIRPORT DATA DEPICTION	COW AUTITUDE - U.S. & ALASKA			
	Associated City Name CITY Airport Airport Name (APT)			
	HIGH ALTITUDE - ALASKA  Airport Name Airport City Name  Airport Elevation (A) **O00.0   Airport Identifier    Automatic Terminal Information Part-time Frequency dividing point [add 00] s indicates soft surface			



#### RADIO AIDS TO NAVIGATION

# NAVIGATION and COMMUNICATION BOXES

#### LOW/ HIGH ALTITUDE

PINE BLUFF (T) (1)

116.00 PBF 107(Y) +1211

118.00 PBF 107(Y) +1211

VOR with TACAN compatible DME

Underline indicates No Voice Transmitted on this frequency

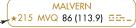
TACAN channels are without voice but not underlined



Crosshatch indicates Shutdown status

- (T) Frequency Protection usable range 25 NM at 12000' AGL
- (Y) TACAN must be placed in "Y" mode to receive distance information
- ASOS/AWOS Automated Surface
  Observing Station/Automated Weather
  Observing Station
- HIWAS Hazardous Inflight Weather Advisory Service
- TWEB Transcribed Weather Broadcast

Automated weather, when available, is broadcast on the associated NAVAID frequency.



Part-time or On-Request

NDB with DME

DME channel and paired VHF frequency are shown

122.65

WICHITA

113.8 ICT 85 ≅--
N37°44.70′ W97°35.03′

FSS associated with a NAVAID

#### 123.6 122.65 EL DORADO ELD

Name and identifier of FSS not associated with NAVAID

Shadow NAVAID Boxes indicate Flight Service Station (FSS) locations. Frequencies 122.2, 255.4 and emergency 121.5 and 243.0 are normally available at all FSSs and are not shown. All other frequencies are shown above the box.

Certain FSSs provide Local Airport Advisory (LAA) on 123.6.

Frequencies transmit and receive except those followed by R or T: R - Receive only  $\,$  T - Transmit only

In Canada, shadow boxes indicate FSSs with standard group frequencies of 121.5, 126.7 and 243.0.

#### (JONESBORO 122.55)

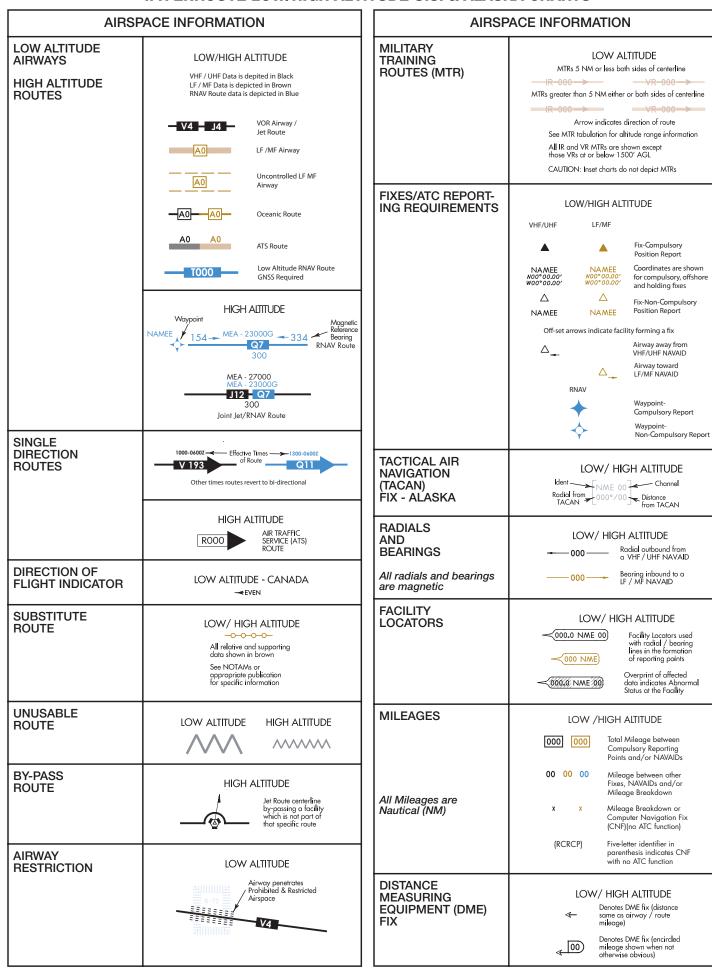
Remote Communications Outlet (RCO) FSS name and remoted frequency are shown

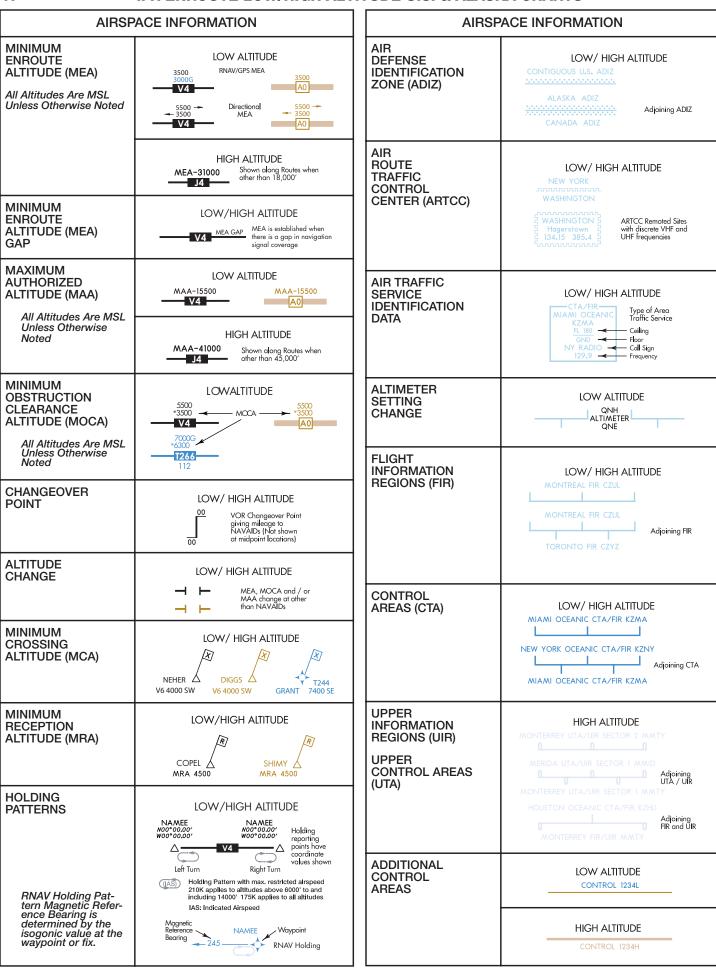
| 122.6 | PINE BLUFF | 116.0 PBF 107 | HIII-| 134°14.81' W91°55.57' | DONESBORO |

Thin Line NAVAID Boxes without frequencies and controlling FSS name indicate no FSS frequencies available. Frequencies positioned above thin line boxes are remoted to the NAVAID sites. Other frequencies at the controlling FSS named are available, however, altitude and terrain may determine their reception.

Morse Code is not shown in NAVAID boxes on High Altitude Charts.

 Flight Service Station (FSS), Remote Communications Outlet (RCO) or Automated Weather Observing Station (AWOS/ASOS) not associated with a charted NAVAID or airport.





#### AIRSPACE INFORMATION

#### **OFF ROUTE OBSTRUCTION CLEARANCE ALTITUDE** (OROCA)

IOW AITITUDE

Example: 12,500 feet

OROCA is computed similarly to the Maximun Elevation Figure (MEF) found on Visual charts except that it provides an additional vertical buffer of 1,000 feet in designated non-mountainous areas and a 2,000 foot vertical buffer in designated mountainous areas within the United States.

#### SPECIAL USE **AIRSPACE**

#### LOW/ HIGH ALTITUDE

P - Prohibited Area R - Restricted Area W - Warning Area

Low Only A - Alert Area

Canada Only CYR - Restricted Area CYD - Danger Area CYA - Advisory Area

Caribbean Only D - Danger Area

In the Caribbean, the first 2 letters represent the country code, i.e. MY: Bahamas, MU: Cuba



- EXCLUSION AREA ANDNOTE

SEE AIRSPACE TABULATION ON EACH CHART FOR COMPLETE INFORMATION ON:

AREA IDENTIFICATION
EFFECTIVE ALTITUDE
OPERATING TIME
CONTROLLING AGENCY VOICE CALL

#### SPECIAL USE **AIRSPACE** Continued

#### **LOW ALTITUDE**

MOA - Military Operations Area



Internal lines delimit separation of the same Special Use Area or Exclusion Areas

SEE AIRSPACE TABULATION ON EACH CHART FOR COMPLETE INFORMATION ON:

AREA IDENTIFICATION EFFECTIVE ALTITUDE CONTROLLING AGENCY VOICE CALL

#### AIRSPACE INFORMATION

#### CONTROLLED **AIRSPACE**

#### HIGH ALTITUDE

CLASS A AIRSPACE

Open Area (White)

That airspace from 18,000′ MSL to and including FL 600, including the airspace overlying the waters within 12 NM of the coast of the contiguous United States and Alaska and designated offshore areas, excluding Santa Barbara Island, Farallon Island, the airspace south of latitude 25 04′00″N, the Alaska peninsula west of longitude 160 00′00″W, and the airspace less than 1,500′ AGL.

That airspace from 18,000' MSL to and including FL 450, including Santa Barbara Island, Farallon Island, the Alaska peninsula west of longitude 160 00'00"W, and designated offshore areas.

#### LOW ALTITUDE

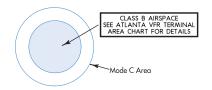
CLASS B AIRSPACE

Screened Blue with a Solid Blue Outline

That airspace from the surface to 10,000' MSL (unless otherwise designated) surrounding the nation's busiest airports. Each Class B airspace area is individually tailored and consists of a surface area and two or more layers.

> MODE C AREA A Solid Blue Outline

That airspace within 30 NM of the primary airports of Class B airspace and within 10 NM of designated airports. Mode-C transponder equipment is required. (see FAR 91.215)



#### LOW ALTITUDE

CLASS C AIRSPACE

Screened Blue with a Solid Blue Dashed Outline

That airspace from the surface to 4,000' (unless That airspace from the surface to 4,000' (unless otherwise designated) above the elevation of selected airports (charted in MSL). The normal radius of the outer limits of Class C airspace is 10 NNM. Class C airspace is also indicated by the letter C in a box following the airport name.



#### LOW ALTITUDE

CLASS D AIRSPACE

Open Area (White)

That airspace, from the surface to 2,500' (unless otherwise designated) above the airport elevation (charted in MSL), surrounding those airports that have an operational control tower. Class D airspace is indicated by the letter D in a box following the airport name.

AIRSPACE INFORMATION		NAVIGATIONAL AND PROCEDURAL INFORMATION		
LOW ALTITUDE  CLASS E AIRSPACE  Open Area (White)	ISOGONIC LINE AND VALUE	LOW/ HIGH ALTITUDE  — geW  Isogonic lines and values shall be based on the five year epoch.		
is not Class B, C, or D.  Federal airways from 1,200' AGL to but not including 18,000' MSL (unless otherwise specified).  Other designated control areas below 14,500' MSL.  Not Charted  That airspace from 14,500' MSL to but not including 18,000' MSL, including the airspace overlying the waters within 12 NM of the coast of the contiguous United States and Alaska and designated offshore areas, excluding the Alaska peninsula west of longitude 160 00'00'W and the airspace less than	TIME ZONE	LOW/ HIGH ALTITUDE  Central Std		
LOW ALTITUDE  CLASS B AIRSPACE	ENLARGEMENT AREA	LOW/ HIGH ALTITUDE  JACKSONVILLE  AREA CHART A-1		
Controlled airspace above 12,500' MSL	MATCH MARK	LOW/HIGH ALTITUDE		
LOW/ HIGH ALTITUDE  CLASS G AIRSPACE  Screened Brown Area  Low Altitude  That portion of the airspace below 14,500' MSL that has not been designated as Class B, C, D or E airspace.  High Altitude  That portion of the airspace from 18,000' MSL and above that has not been designated as Class A airspace.				
HIGH ALTITUDE  DOD USERS REFER TO CURRENT DOD (NGA) CHARTS AND FLIGHT INFORMATION PUBLICATIONS FOR INFORMATION OUTSIDE OF U.S. AIRSPACE  NOTE: REFER TO CURRENT CANADIAN CHARTS AND FLIGHT INFORMATION PUBLICATIONS FOR INFORMATION WITHIN CANADIAN AIRSPACE				
AIRSPACE CLASSIFICATION (SEE CANADA FUGHT SUPPLEMENT) AND OPERATIONAL REQUIREMENTS (DOD USERS SEE DOD AREA FLANNING AP/1) MAY DIFFER BETWEEN CANADA AND THE UNITED STATES				
	LOW ALTITUDE  CLASS E AIRSPACE Open Area (White)  That controlled airspace below 14,500' MSL which is not class B, C, or D. Federal airways from 1,200' AGL to but not including 18,000' MSL (unless otherwise specified).  Other designated control areas below 14,500' MSL.  Not Charted  That airspace from 14,500' MSL to but not including 18,000' MSL, including the airspace overlying the waters within 12 NM of the coats of the contiguous United States and Alaska and designated affshore areas, excluding the Alaska peninsula west of longitude 160 00'00'W and the airspace less than 1,500' AGL.  LOW ALTITUDE  CLASS B AIRSPACE Screened Brown Checkered Area Controlled airspace above 12,500' MSL  LOW Altitude  That portion of the airspace below 14,500' MSL that has not been designated as Class B, C, D or E airspace.  High Altitude  That portion of the airspace from 18,000' MSL and above that has not been designated as Class B, C, D or E airspace.  High Altitude  That portion of the airspace from 18,000' MSL and above that has not been designated as Class B, C, D or E airspace.  High Altitude  That portion of the airspace from 18,000' MSL and above that has not been designated as Class B, C, D or E airspace.  NOTE: REFER TO CURRENT DOD (NGA) CHARTS AND FUGHT INFORMATION PUBLICATIONS FOR INFORMATION WITHIN CANADIAN AIRSPACE  AIRSPACE CLASSIFICATION (SEE CANADA FUGHT SUPPLEMENT) AND OPERATIONAL REQUIREMENTS (DOD USERS SEE DOD AREA PIANING AP/1) MAY	LOW ALTITUDE CLASS E AIRSPACE Open Area (White) That controlled of inspace below 14,500° MSL which is not class 6. C. or D. Federal drivery, fron 1,200° AC4 to but not including 18,000° MSL (belows otherwise specified). Other designated control oreas below 14,500° MSL Not Chande That airspace from 14,500° MSL to but not including 18,000° MSL including the airspace below 14,500° MSL White Market of the configuration of the con		

#### NAVIGATIONAL AND PROCEDURAL INFORMATION **CRUISING** LOW ALTITUDE **ALTITUDES** U.S. only EVEN ODD Thousands VFR or ON TOP VFR or EVEN ON TOP Thousands ODD Thousands Plus 500' 500' 180 VFR above 3000' AGL unless otherwise authorized by ATC IFR outside controlled airspace IFR within controlled airspace as assigned by ATC All courses are magnetic HIGH ALTITUDE 18,000' MSL to FL280 \* 170°M FL's FL's 180 190 200 210 220 230 240 250 260 270 350°M 180° 280 VFR or VFR On Top add 500' No VFR flights within Class A Airspace above 3000' AGL unless otherwise authorized by ATC. RVSM Levels FL290 to FL410 FL's 290 300 310 320 330 340 350 360 370 380 390 350°M - 180° 410 No VFR or VFR On Top authorized above FL285 in RVSM airspace. FL430 and Above FI's FI's 430 450 470 490 510 530 550 570 PS 0°M 180° IFR within controlled airspace as assigned by ATC

### NAVIGATIONAL AND PROCEDURAL INFORMATION **NOTES** LOW/ HIGH ALTITUDE FAA AIR TRAFFIC SERVICE OUTSIDE U.S. AIRSPACE IS PROVIDED IN ACCORDANCE WITH ARTICLE 12 AND ANNEX 11 OF ICAO CONVENTION. ICAO CONVENTION NOT APPLICABLE TO STATE AIRCRAFT BUT COMPLIANCE WITH ICAO STANDARDS AND PRACTICES IS ENCOURAGED. CAUTION: POSSIBLE DAMAGE AND/OR INTERFERENCE TO AIRBORNE RADIO DUE TO HIGH LEVEL RADIO ENERGY IN THE VICINITY OF R-2206 CAUTION: ACCURACY OF AIR TRAFFIC SERVICES RELATIVE TO HAVANA FIR CANNOT BE CONFIRMED. CONSULT NOTAMS. North American Datum of 1983 (NAD 83), for charting purposes is considered equivalent to World Geodetic System 1984 (WGS 84). MORSE CODE LOW/ HIGH ALTITUDE N --A --2 -----В ----0 --c ----P ----3 -----D ---Q ----4 -----R ---E -5 --------s ---6 -----G ---T н ----U ---8 -----1 ---9 ----v ----1 ----W ---0 ---к --x ----L ----Υ ---z ----M --**CULTURE BOUNDARIES** LOW/ HIGH ALTITUDE Omitted when coincident with ARTCC or FIR International LOW/ HIGH ALTITUDE U.S. /Russia RUSSIA Maritime Line UNITED STATES LOW/ HIGH ALTITUDE Date Line INTERNATIONAL DATE LINE MONDAY SUNDAY **HYDROGRAPHY** SHORELINE **TOPOGRAPHY TERRAIN** Area Charts

51	OCEANIC ROUTE CHA			
	AIRPORTS			
AIRPORT DATA	Airport of Entry (AOE) are shown with four letter ICAO Identifier			
LANDPLANE-CIVIL Refueling and repair facilities for normal traffic.	HONOLULU INTL (PHNL)			
LANDPLANE-CIVIL AND MILITARY Refueling and repair facilities for normal traffic.	→ HILO INTL (PHTO)			
LANDPLANE- MILITARY Refueling and repair facilities for normal traffic.	⊚ KALAELOA (PHJR)			
RADIO	AIDS TO NAVIGATION			
VHF OMNIDIRECTIONAL RADIO RANGE (VOR)	VOR ⊕ ○ VOR / DME • [7]			
DISTANCE MEASURING EQUIPMENT	VORTAC			
TACTICAL AIR NAVIGATION (TACAN)	TACAN			
NON-DIRECTIONAL RADIO BEACON (NDB)	NDB •			
DISTANCE MEASURING EQUIPMENT (DME)	NDB / DME ① ①  NARC NPRC			
IDENTIFICATION BOX	/			
	Identification MDY 400 N28°12.2' W177°22.8'  Identification NQM 347 CHAN 93 N28°12.2' W177°22.8' Latitude & Longitude Latitude & Longitude Latitude & Longitude	,		
AIRSPACE INFORMATION				
AIR TRAFFIC SER- VICE (ATS) OCEANIC ROUTES	A450 Identification 283 Mileage			
Note: Mileages are Nautical (NM)	UHF Caribbean Identification 114 Mileage			
ATS SINGLE DIRECTION ROUTE				
AERIAL REFUELING TRACKS	AR-900 E ∑∑∑∑ One Way FL 180/270  AR-903 E,W ☐ ☐ ☐ Two Way FL 180/270			

AIRSPACE INFORMATION			
AIR DEFENSE IDENTIFICATION ZONE (ADIZ)	HAWAIIAN ADIZ TAIWAN ADIZ JAPAN ADIZ		
AIR ROUTE TRAFFIC CONTROL CENTER (ARTCC)	SEATTLE (ZSE) 		
FLIGHT INFORMATION REGIONS (FIR) and/or (CTA)	HONOLULU FIR PHZH  HONIARA FIR ANAU  HONOLULU FIR PHZH		
UPPER INFORMATION REGIONS (UIR)	JAKARTA UIR WIIZ  MERIDA UTA / UIR MMID		
UPPER CONTROL AREAS (UTA)	MAZATIAN UTA / UIR MMZT  MEXICO FIR / UIR MMFR  [		
OCEANIC CONTROL AREAS (OCA) and /or (CTA /FIR)	OAKLAND OCEANIC  CTA / FIR KZAK  I I I I  TOKYO FIR / OCA RITG  I I I  NAHA FIR / OCA RORG		
ADDITIONAL OCEANIC CONTROL AREAS  Note: Limits not shown when coincident with Warning	CONTROL 1485		
BUFFER ZONE	Teeth point to area		
NON-FREE FLYING ZONE	Teeth point to area		
NORTH ATLANTIC / MINIMUM NAVIGATION PERFORMANCE SPECIFICATIONS (NAT/MNPS)	**************************************		
REPORTING POINTS	Name — ARTOP Latitude & N20°52.7' Longitude		
SPECIAL USE AIRSPACE	W-470 W517		
Warning Area	NARC NPRC		
Special Use	ATLANTIC FLEET WEAPONS RANGE		
12 Mile Limit			
UNCONTROLLED AIRSPACE			

NAVIGATIONAL AND PROCEDURAL INFORMATION		CULTURAL BOUNDARIES	
MILEAGE CIRCLES	DI NOCEDONAL INI CHIMATION	INTERNATIONAL	
WILLEAGE CIRCLES	100 NM		
Note: Mileages are Nautical (NM)	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	MARITIME	RUSSIA UNITED STATES
Time Zone Note: All time is Coordinated Uni- versal (Standard) Time (UTC)	+3 <b>=</b> UTC +2 <b>=</b> UTC	DATE LINE	MONDAY SUNDAY
Overlap Marks			
NPRC Only	S W		
OOMBACO DOOF			
COMPASS ROSE  Note: Compass Roses oriented to Magnetic North	MN		
	390	HYDROGRAPHY	
200	80 080 M	SHORELINES	
NOTES WARNING	AIRCRAFT INFRINGING UPON NON FREE FLYING TERRITORY MAY BE FIRED UPON WITHOUT WARNING		